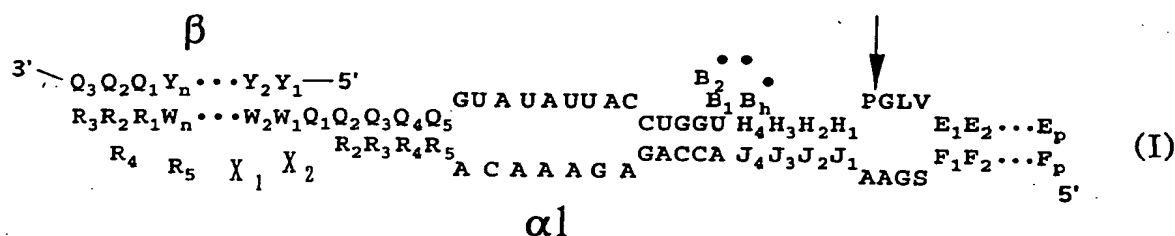


## IN THE CLAIMS

The claims are pending as follows:

1. (Original) A hairpin ribozyme activated by changes in its stem-and-loop three-dimensional structure due to hybridization with an oligonucleotide.
2. (Original) The hairpin ribozyme according to claim 1, wherein the hybridization with an oligonucleotide is constituted by 3 to 23 base pairs.
3. (Original) The hairpin ribozyme according to claim 1, wherein the oligonucleotide is a part of a target nucleotide sequence.
4. (Original) The hairpin ribozyme according to claim 1, which is a cis-form ribozyme which first self-cleaves upon activation.
5. (Original) The hairpin ribozyme according to claim 4, which exhibits a complex structure with an oligonucleotide as shown in general formula (I) or (II)



[wherein  $\alpha 1$  represents a ribozyme sequence and  $\beta$  represents an oligonucleotide sequence:

in which U represents a uracil nucleotide, C represents a cytosine nucleotide, A represents an adenine nucleotide, and G represents a guanine nucleotide;

B1 to Bh, E1 to Ep, H1 to H4, Q1 to Q5, W1 to Wn, and X1 and X2, which may be the same or different, each represent any of a uracil nucleotide, an adenine nucleotide, a cytosine nucleotide, or a guanine nucleotide;

F1 to Fp, J1 to J4, R1 to R5, and Y1 to Yn each represent a nucleotide, which is complementary to E1 to Ep, H1 to H4, Q1 to Q5, and W1 to Wn, respectively;

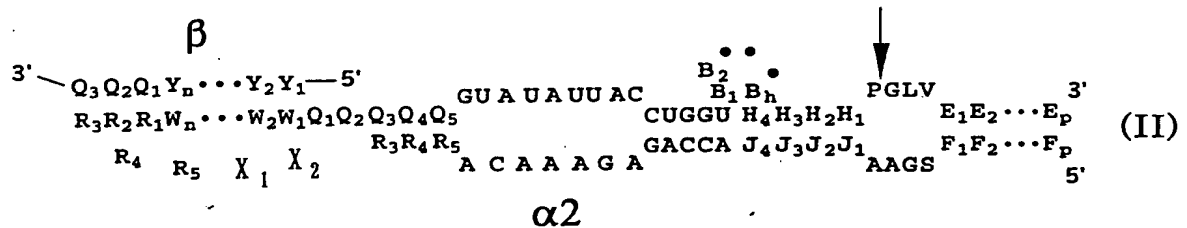
S represents an adenine nucleotide or a cytosine nucleotide;

P represents any of a uracil nucleotide, an adenine nucleotide, a cytosine nucleotide, or a guanine nucleotide;

L represents any of a uracil nucleotide, an adenine nucleotide, or a cytosine nucleotide;

V represents an adenine nucleotide when S is a cytosine nucleotide and represents a uracil nucleotide or a cytosine nucleotide when S is an adenine nucleotide; and

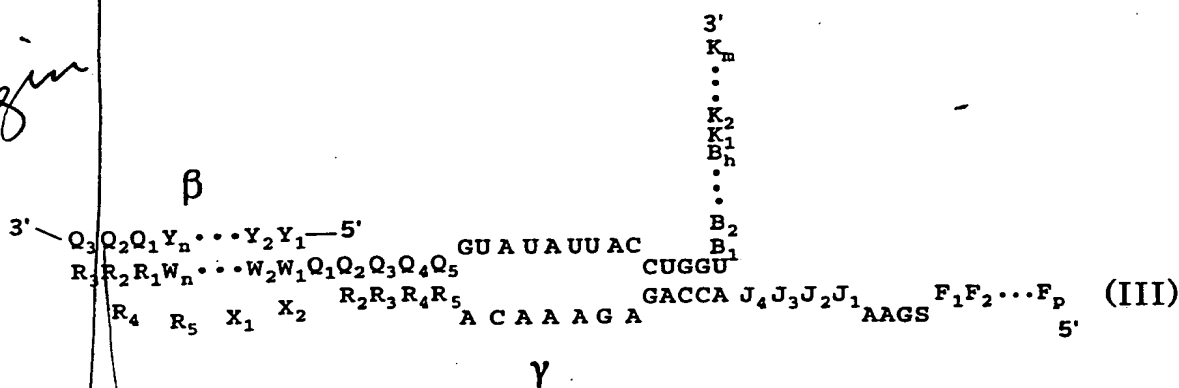
h is an integer from 3 to 20, n is an integer from 1 to 10, and p is an integer from 1 to 10.]



[wherein  $\alpha 2$  represents a ribozyme sequence and  $\beta$  represents an oligonucleotide sequence with symbols used herein conveying the same meanings as used in general formula (I).]

6. (Original) The hairpin ribozyme according to claim 1, which is a trans-form ribozyme cleaving another ribonucleotide sequence upon activation.

7. (Withdrawn) The hairpin ribozyme according to claim 6, which exhibits a complex structure with an oligonucleotide as shown in general formula (III)



[wherein  $\gamma$  represents a ribozyme sequence and  $\beta$  represents an oligonucleotide sequence:

in which U represents a uracil nucleotide, C represents a cytosine nucleotide, A represents an adenine nucleotide, and G represents a guanine nucleotide;

B1 to Bh, F1 to Fp, J1 to J4, K1 to Km, Q1 to Q5, W1 to Wn, and X1 and X2, which may be the same or different, each represent any of a uracil nucleotide, an adenine nucleotide, a cytosine nucleotide, or a guanine nucleotide;

R1 to R5 and Y1 to Yn each represent a nucleotide, which is complementary to Q1 to Q5 and W1 to Wn, respectively;

S represents an adenine nucleotide or a cytosine nucleotide; and

h is an integer from 3 to 20, m is an integer from 1 to 10, n is an integer from 1 to 10, and p is an integer from 1 to 10.]

8. (Original) An isolated DNA encoding a ribonucleotide which constitutes the hairpin ribozyme according to claim 1.
9. (Original) A recombinant vector comprising the DNA according to claim 8.
10. (Original) A host cell into which the recombinant vector according to claim 9 has been introduced.
11. (Withdrawn) A method for activating a hairpin ribozyme, comprising changing a stem-and-loop three-dimensional structure by hybridization between an oligonucleotide and an inactive ribozyme.
12. (Withdrawn) The method for activating a hairpin ribozyme according to claim 11, wherein one or more nucleotides in the oligonucleotide are 2'-O-methylated.
13. (Withdrawn) A method for detecting a target nucleotide sequence with the hairpin ribozyme according to claim 1.
14. (Withdrawn) The method for detecting according to claim 13, comprising detecting

the presence of a target nucleotide sequence in a sample contained on a DNA chip.

15. (Withdrawn) A method for detecting a target nucleotide sequence, comprising detecting a fragment cleaved by the self-cleavage of the hairpin ribozyme according to claim 1.
16. (Withdrawn) The method for detecting according to claim 13, comprising detecting a cleaved fragment using a fluorochrome or a radioactive label.
17. (Withdrawn) A detection kit for a target nucleotide sequence in a sample, comprising the hairpin ribozyme according to claim 1.
18. (Withdrawn) A method for cleaving a ribonucleotide sequence, using the hairpin ribozyme according to claim 1.
19. (Withdrawn) The method for cleaving according to claim 18, wherein administration of the hairpin ribozyme according to claim 1 is carried out separately from that of the oligonucleotide.
20. (Withdrawn) The method for cleaving according to claim 18, wherein one or more nucleotides in the oligonucleotide are 2'-O-methylated.
21. (Withdrawn) A pharmaceutical composition comprising the hairpin ribozyme according to claim 1.